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7 IN THE UNITED STATES DISTRICT COURT  
8 FOR THE NORTHERN DISTRICT OF CALIFORNIA  
9 SAN FRANCISCO DIVISION  
10 Power Integrations, Inc., NO. C 09-05235 JW  
11 Plaintiff,  
12 v.  
13 Fairchild Semiconductor Int'l, Inc., et al.,  
14 Defendants.  
15 \_\_\_\_\_ /

**I. INTRODUCTION**

16 Power Integrations, Inc. (“Plaintiff”) manufactures power conversion integrated circuit  
17 devices, which are used in power supplies for electronic devices such as cellular phones, LCD  
18 monitors and computers. Plaintiff brings this action against Fairchild Semiconductor International,  
19 Inc., Fairchild Semiconductor Corporation (collectively, “Fairchild”) and System General  
20 Corporation (“SG”) (collectively, “Defendants”) for alleged patent infringement of Power  
21 Integrations’ U.S. Patent Nos. 6,212,079 (the “‘079 Patent”) and 6,538,908 (the “‘908 Patent”).  
22 Defendants filed a counterclaim against Plaintiff for alleged patent infringement of Fairchild’s U.S.  
23 Patent No. 5,747,977 (the “‘977 Patent”). The ‘977 Patent is the subject of a separate Order. All of  
24 the patents-in-suit cover methods and apparatuses for increased efficiency in power supply circuits.

25 On March 24, 2011, the Court conducted a hearing in accordance with Markman v.  
26 Westview Instruments, Inc.,<sup>1</sup> to construe language of the asserted claims over which there is a  
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<sup>1</sup> 517 U.S. 370 (1996).

1 dispute. This First Claim Construction Order sets forth the Court's Construction of the disputed  
2 words and phrases.

3 **II. BACKGROUND**

4 On June 28, 2004, Plaintiff filed a Complaint for Patent Infringement against SG in this  
5 District, concerning, *inter alia*, the '079 and '908 Patents.<sup>2</sup> During the 2004 Action, SG initiated *ex*  
6 *parte* reexamination proceedings before the United States Patent and Trademark Office ("USPTO")  
7 raising a number of allegations of invalidity. (Complaint ¶¶ 27, 38.) Ultimately, the District Court  
8 case was stayed pending the resolution of a parallel case proceeding before the International Trade  
9 Commission ("ITC"). (*Id.* ¶¶ 24, 35.) On August 11, 2006, the ITC issued an exclusion order  
10 against the SG chips found to be infringing Plaintiff's patents. (*Id.*)

11 After the resolution of the ITC proceedings, Plaintiff moved to dismiss the 2004 Action  
12 without prejudice. (See 2004 Action, Docket Item No. 162.) On May 21, 2008, Judge White  
13 granted Plaintiff's Motion to Dismiss Without Prejudice. (See 2004 Action, Docket Item No. 180.)  
14 Judge White included a stipulation requiring Plaintiff to file any future suit against SG involving one  
15 or more of the patents-in-suit in the 2004 Action in this District. (*Id.*)

16 On November 4, 2009, Plaintiff filed its Complaint against Defendants for Patent  
17 Infringement. (Docket Item No. 1.) On December 9, 2009, Judge White granted the parties'  
18 Stipulation to relate the 2009 case with the 2004 case. (2004 Action, Docket Item No. 184.)  
19 However, on December 11, 2009, Judge White filed an Order of Recusal and the case was  
20 reassigned to this Court. (2004 Action, Docket Item Nos. 185, 186.) On March 4, 2010, the Court  
21 denied Plaintiff's Motion to Transfer Venue and denied Defendants' Motion for a More Definite  
22 Statement, to Dismiss, or to Strike. (See Docket Item No. 40.) On March 18, 2010, Defendants  
23 filed their Answer and Counterclaim and on May 5, 2010, Defendants filed a First Amended Answer  
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26 <sup>2</sup> (See Complaint for Patent Infringement, hereafter, "Complaint," Docket Item No. 1; see  
27 also Complaint for Patent Infringement, Power Integrations, Inc. v. System General Corp., et al.,  
Case No. 04-02581 JSW, hereafter, "2004 Action," Docket Item No. 1.)

1 and Counterclaim. (See Docket Item Nos. 44, 61.) On June 1, 2010, Plaintiff filed its Answer to  
2 Defendants' Counterclaim. (See Docket Item No. 66.)

3 **III. STANDARDS AND PROCEDURES FOR CLAIM CONSTRUCTION**

4 **A. General Principles of Claim Construction**

5 Claim construction is a matter of law, to be decided exclusively by the Court. Markman, 517  
6 U.S. at 387. When the meaning of a term used in a claim is in dispute, the Court invites the parties  
7 to submit their respective proposed definitions and a brief, outlining the basis for their proposals. In  
8 addition, the Court conducts a hearing to allow oral argument of the respective proposed definitions.  
9 After the hearing, the Court takes the matter under submission, and issues an Order construing the  
10 meaning of the term. The Court's construction becomes the legally operative meaning of the term  
11 that governs further proceedings in the case. See Vitronics Corp. v. Conceptronic, Inc., 90 F.3d  
12 1576, 1582 (Fed. Cir. 1996). The Court recognizes that claim construction is a fluid process,  
13 wherein the Court may consider a number of extrinsic sources of evidence so long as they do not  
14 contradict the intrinsic evidence. However, the Court acknowledges that greater weight should  
15 always be given to the intrinsic evidence. Phillips v. AWH Corp., 415 F.3d 1303, 1324 (Fed. Cir.  
16 2005).

17 **B. Construction from the Viewpoint of an Ordinarily Skilled Artisan**

18 A patent's claims define the scope of the patent: the invention that the patentee may exclude  
19 others from practicing. Phillips, 415 F.3d at 1312. The Court generally gives the patent's claims  
20 their ordinary and customary meaning. In construing the ordinary and customary meaning of a  
21 patent claim, the Court does so from the viewpoint of a person of ordinary skill in the art at the time  
22 of the invention, which is considered to be the effective filing date of the patent application. Thus,  
23 the Court seeks to construe the patent claim in accordance with what a person of ordinary skill in the  
24 art would have understood the claim to have meant at the time the patent application was filed. This  
25 inquiry forms an objective baseline from which the Court begins its claim construction. Id. at 1313.

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1       The Court proceeds from that baseline under the premise that a person of ordinary skill in the  
2 art would interpret claim language not only in the context of the particular claim in which the  
3 language appears, but also in the context of the entire patent specification of which it is a part.  
4 Phillips, 415 F.3d at 1313. Additionally, the Court considers that a person of ordinary skill in the art  
5 would consult the rest of the intrinsic record, including any surrounding claims, the drawings and the  
6 prosecution history, if it is in evidence. Id.; see also Teleflex, Inc. v. Fisosa N. Am. Corp., 299 F.3d  
7 1313, 1324 (Fed. Cir. 2002). In reading the intrinsic evidence, a person of ordinary skill in the art  
8 would give consideration to whether the disputed term is a term commonly used in lay language, a  
9 technical term, or a term defined by the patentee.

10 **C. Commonly Used Terms**

11       In some cases, disputed claim language involves a commonly understood term that is readily  
12 apparent to the Court. In such a case, the Court considers that a person of ordinary skill in the art  
13 would give the term its widely accepted meaning, unless a specialized definition is stated in the  
14 patent specification or was stated by the patentee during prosecution of the patent. In articulating  
15 the widely accepted meaning of such a term, the Court may consult a general purpose dictionary.  
16 Phillips, 415 F.3d at 1314.

17 **D. Technical Terms**

18       If a disputed term is a technical term in the field of the invention, the Court considers that  
19 one of skill in the art would give the term its ordinary and customary meaning in that technical field,  
20 unless a specialized definition is stated in the specification or during prosecution of the patent.  
21 Phillips, 415 F.3d at 1314. In arriving at this definition, the Court may consult a technical art-  
22 specific dictionary or invite the parties to present testimony from experts in the field on the ordinary  
23 and customary definition of the technical term at the time of the invention. Id.

24 **E. Defined Terms**

25       The Court acknowledges that a patentee is free to act as his or her own lexicographer. See,  
26 e.g., Process Control Corp. v. HydReclam Corp., 190 F.3d 1350, 1357 (Fed. Cir. 1999). Acting as  
27 such, the patentee may use a term differently than a person of ordinary skill in the art would

1 understand it, without the benefit of the patentee's definition. Vitronics Corp., 90 F.3d at 1582.  
2 Thus, the Court examines the claims and the intrinsic evidence to determine if the patentee used a  
3 term with a specialized meaning.

4 The Court regards a specialized definition of a term stated in the specification as highly  
5 persuasive of the meaning of the term as it is used in a claim. Phillips, 415 F.3d at 1316-17.  
6 However, the definition must be stated in clear words, which make it apparent to the Court that the  
7 term has been defined. See id.; Vitronics Corp., 90 F.3d at 1582. If the definition is not clearly  
8 stated or cannot be reasonably inferred, the Court may decline to construe the term pending further  
9 proceedings. Statements made by the patentee in the prosecution of the patent application as to the  
10 scope of the invention may be considered when deciding the meaning of the claims. Microsoft  
11 Corp. v. Multi-Tech Systems, Inc., 357 F.3d 1340, 1349 (Fed. Cir. 2004). Accordingly, the Court  
12 may also examine the prosecution history of the patent when considering whether to construe the  
13 claim term as having a specialized definition.

14 In construing claims, it is for the Court to determine the terms that require construction and  
15 those that do not. See U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997).  
16 Moreover, the Court is not required to adopt a construction of a term, even if the parties have  
17 stipulated to it. Pfizer, Inc. v. Teva Pharm. USA, Inc., 429 F.3d 1364, 1376 (Fed. Cir. 2005).  
18 Instead, the Court may arrive at its own constructions of claim terms, which may differ from the  
19 constructions proposed by the parties.

#### 20 IV. DISCUSSION

##### 21 A. The '079 Patent

22 The '079 Patent is entitled "Method and Apparatus for Improving Efficiency in a Switching  
23 Regulator at Light Loads."

24 The Abstract of the '079 Patent describes the invention as follows:

25 A switching regulator that operates at a frequency for a first range of feedback signal values  
26 and at a variable frequency without skipping cycles for a second range of feedback signal  
27 values. In one embodiment, a switching regulator for a switched mode power supply  
includes a power switch coupled between drain and source terminals of the switching  
regulator, which are to be coupled to control the delivery of power to an output of a power

1 supply. A control terminal of the switching regulator is to be coupled to an output of the  
 2 power supply. The switching regulator includes a control circuit coupled to the control  
 3 terminal and generates a feedback signal that is responsive to the output of the power supply.  
 4 The control circuit also generates a drive signal that is coupled to control the switching of the  
 power switch. The control circuit generates the drive signal responsive to the feedback  
 signal. The drive signal has a fixed frequency for a first range of feedback signal values and  
 at a variable frequency without skipping cycles for a second range of feedback signal values.

5 The '079 Patent was the subject of *ex parte* reexamination proceedings before the USPTO.

6 The USPTO issued an *Ex Parte* Reexamination Certificate determining that certain claims were  
 7 patentable as amended and adding new patentable claims.<sup>3</sup>

8 Claim 1 of the '079 Patent, as it appears in the reexamination certificate,<sup>4</sup> provides:<sup>5</sup>

9 A switching regulator, comprising:

10 a power switch coupled between first and second terminals, the first terminal to be coupled  
 11 to an energy transfer element of a power supply and the second terminal to be  
 coupled to a supply rail of the power supply;

12 a control circuit coupled to a third terminal and the power switch, the third terminal to be  
 13 coupled to an output of the power supply, the control circuit coupled to generate a  
 feedback signal responsive to the output of the power supply, the control circuit  
 coupled to switch the power switch in response to the feedback signal; and

14 **an oscillator circuit included in the control circuit for controlling both a switching  
 15 frequency and a maximum duty cycle of the power switch,**

16 wherein the control circuit is coupled to switch the power switch at a **fixed switching  
 17 frequency** for a first range of feedback signal values **when the output of the  
 power supply is in regulation**, and wherein the control circuit is coupled to  
 18 **vary a switching frequency of the power switch without skipping cycles in  
 response to the feedback signal** for a second range of feedback signal values  
**when the output of the power supply is in regulation.**<sup>6</sup>

19 ('079 Patent, Col. 1:27-50.)

22 <sup>3</sup> (See '079 Patent, *Ex Parte* Reexamination Certificate, hereafter, "'079 Patent.")

23 <sup>4</sup> Claim 1 was determined to be patentable as amended in the reexamination proceedings.  
 24 The claim terms at issue also appear in Claims 31, 34, 38, 40, 42 and 45, all of which were added  
 25 during reexamination. (See *id.*)

26 <sup>5</sup> Unless otherwise indicated, all bold typeface is added by the Court for emphasis.

27 <sup>6</sup> The Court refers to the final limitation in Claim 1 of the '079 Patent as the "Wherein  
 Clauses" limitation.

1       **1.       “an oscillator circuit included in the control circuit for controlling both a  
2           switching frequency and a maximum duty cycle of the power switch”**

3           The parties dispute the meaning of some of the words and phrases in the following  
 4           limitation: “an oscillator circuit included in the control circuit for controlling both a switching  
 5           frequency and a maximum duty cycle of the power switch.” For convenience, the Court will refer to  
 6           this limitation as the “oscillator circuit” limitation.

7           **a.       switching frequency**

8           The parties have not requested construction of the phrases “switching frequency” or  
 9           “maximum duty cycle.” However, because the limitation expressly discloses that the “oscillator  
 10           circuit” is for controlling the “switching frequency” and “maximum duty cycle,” the Court construes  
 11           those phrases.

12           The patentees did not include an express definition of “switching frequency” in the Claims of  
 13           the ‘079 Patent or in the written description. The word “frequency” is commonly understood to  
 14           mean the number of repetitions of a periodic process in a unit of time.<sup>7</sup> The time units described in  
 15           the written description are seconds and microseconds. The written description describes  
 16           “switching” as the periodic process of the control circuit generating a drive signal that switches the  
 17           power switch on and off. (‘079 Patent, Col. 4:3-5.)

18           Accordingly, the Court construes the phrase “switching frequency” to mean:

19           **the number of switching cycles of the power switch per second.**20           **b.       maximum duty cycle**

21           The phrase “maximum duty cycle” is not expressly defined in the Claims. In the  
 22           Background Section of the written description, “duty cycle” is defined as a prior art phrase that  
 23           means “the ratio of the on time to the switching period<sup>8</sup> of the output transistor.” (‘079 Patent, Col.  
 24           1:40-42.)

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25           <sup>7</sup> See WEBSTER’S NEW COLLEGiate DICTIONARY 492 (9th ed. 1991).

26           <sup>8</sup> “The period is equal to the on-time [plus] off-time of the drive signal.” (‘079 Patent, Col.  
 27           6:17.)

1 Accordingly, the Court construes the phrase “maximum duty cycle” to mean:  
2 **the fraction of the overall switching period for which the switch is turned “on.”**

3 **c. oscillator circuit**

4 The phrase “oscillator circuit” is not used in the written description of the ‘079 Patent. The  
5 patentees added the phrase “oscillator circuit,” and indeed the entire “oscillator circuit limitation,”  
6 during reexamination of the ‘079 Patent. (See ‘079 Patent.) The limitation states that the “oscillator  
7 circuit” is for controlling “*both* a switching frequency and a maximum duty cycle.” (Id. (emphasis  
8 added).) The prosecution history discloses that this limitation was added to overcome rejections  
9 under 35 U.S.C. § 102(b) on the ground that the Claim was anticipated by various prior art  
10 references. After adding the “oscillator circuit limitation,” the Claim was allowed because the  
11 patentee distinguished the prior art by arguing that no reference disclosed a single oscillator circuit  
12 for controlling “*both the switching frequency and the maximum duty cycle.*”<sup>9</sup>

13 The Claim recites that the “oscillator circuit” is “included in the control circuit.” (See ‘079  
14 Patent, Claim 1.) The patentee cited Figure 2 along with the written description in column 4, line 59  
15 through column 5, line 9 of the ‘079 Patent as enabling support for the “oscillator circuit” limitation.  
16 (December 19 Response at 21-22.) This section of the written description states that the “control  
17 circuit includes a pulse width modulator (‘PWM’) circuit” that “includes an oscillator.” (‘079  
18 Patent, Col. 4:45-49.) The PWM generates a drive signal, in response to a feedback signal, that  
19 controls the duty cycle of the power switch as well as the switching frequency. (See ‘079 Patent,  
20 Col. 4:3-5, 46-49, 6:27-42.)

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<sup>9</sup> (See e.g., Declaration of Michael R. Headley in Support of Power Integrations’ Opening  
26 Claim Construction Brief, hereafter, “Headley Opening Decl.” Ex. N, Power Integrations’  
27 December 19, 2007 Response to ‘079 Reexamination Office Action at 41, hereafter, “December 19  
Response,” Docket Item No. 111-4 (emphasis in original).)

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1           Accordingly, as used in Claim 1 of the '079 Patent, the Court construes the phrase "an  
2 oscillator circuit included in the control circuit for controlling both a switching frequency and a  
3 maximum duty cycle of the power switch" to mean:

4           **A pulse width modulator circuit included in the control circuit that controls both the  
5 number of switching cycles of the power switch per second (switching frequency) and  
6 the maximum fraction of the switching period that the switch can be turned on for each  
7 switching cycle (maximum duty cycle) and that contains at least an oscillator and a  
8 device that is connected to receive a feedback signal.**

9           **2. First "wherein" Clause**

10          Claim 1 recites two "wherein" clauses. The parties dispute the meanings of the words and  
11 phrases in both "wherein" clauses.

12          The first "wherein" clause provides:

13          wherein the control circuit is coupled to switch the power switch at a **fixed switching  
14 frequency** for a first range of feedback signal values **when the output of the power  
15 supply is in regulation**

16           **a. "fixed switching frequency"**

17          The parties dispute the meaning of the phrase "fixed switching frequency."

18          As stated above, the Court finds that "switching frequency" is the amount of switching  
19 cycles per second. The Claim recites that the control circuit is coupled to switch the power switch at  
20 "a *fixed* switching frequency for a first range of feedback signal values" and to "vary a<sup>10</sup> switching  
frequency of the power switch . . . for a second range of feedback signal values." (See '079 Patent,  
Claims 1, 31, 34, 38, 42.) Thus, the phrase "fixed switching frequency" is used in contrast to a  
"variable switching frequency."

21          The written description describes the two ranges of feedback values as follows: "there are  
22 two modes of operation for a switching regulator in accordance with the teachings of the present  
23 invention—full frequency and low frequency." ('079 Patent, Col. 6:27-29.) Figure 5 illustrates that

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25           <sup>10</sup> Although the Claim uses the indefinite article "a," a person of ordinary skill in the art  
26 would understand that the fixed frequency and the varied frequency would be of the same power  
27 switch. Thus, the Claim would be understood to disclose "to vary *the* switching frequency of the  
power switch."

1 the switching frequency “remains fixed” while in full frequency operation. (‘079 Patent, Figure 5,  
2 Col. 9:41-53.)

3 The Court finds that a person of ordinary skill in the art at the time of the invention would  
4 understand the word “fixed” to be used with its ordinary and customary meaning, namely, “not  
5 subject to change or fluctuation.”<sup>11</sup> This is consistent with the written description as well as the  
6 depiction of the switching frequency in Figure 5, which shows an unchanging switching frequency  
7 value in contrast to a variable switching frequency value.

8 Accordingly, as used in Claim 1 of the ‘079 Patent, the Court construes the phrase “fixed  
9 switching frequency” to mean:

10 **A non-varying number of switching cycles per second.**

11 **b. “when the output of the power supply is in regulation”**

12 The first “wherein” clause provides:

13 wherein the control circuit is coupled to switch the power switch at a fixed switching  
14 frequency for a first range of feedback signal values **when the output of the power**  
**supply is in regulation**

15 The parties dispute the meaning of the phrase “when the output of the power supply is in  
16 regulation.” Because this phrase is disclosed in both “wherein” clauses, the Court’s construction is  
17 applicable to both clauses.

18 The patentee added this limitation during the reexamination of the ‘079 Patent as a  
19 limitation on when the control circuit switches the power switch. (See ‘079 Patent.) The phrase  
20 “. . . when the output of the power supply is in regulation” was used to overcome an examiner’s  
21 rejection under 35 U.S.C. § 102(e) as being anticipated by Linear Technology’s LT1074/LT1076

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27 <sup>11</sup> See WEBSTER’S NEW COLLEGIATE DICTIONARY 468 (9th ed. 1991).

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1 Data Sheet.<sup>12</sup> Thus, the Court finds that “in regulation” excludes “fault conditions,” for example, the  
 2 “dead shorted output conditions” disclaimed in the prosecution history.

3 Figures 5 and 6 of the ‘079 Patent were cited by the patentee during reexamination as  
 4 enabling support for the addition of this limitation. (December 19 Response at 22.) “Figures 5 and  
 5 6 are diagrams illustrating the relationships of frequency vs. current, and duty cycle vs. current, in  
 6 one embodiment of switching regulator in accordance with the teachings of the present invention.”  
 7 (‘079 Patent, Col. 9:30-33.) The Background Section of the ‘079 Patent describes a switched mode  
 8 power supply circuit that “usually provides output regulation by sensing the output and controlling it  
 9 in a closed loop.” (‘079 Patent, Col. 1:23-25.) The written description also states that the switching  
 10 regulator operates “during normal operation” and is powered “after an initial turn-on by current into  
 11 [the] control terminal.” (See ‘079 Patent, Col. 4:10- 25.) Thus, the Court finds that a person of  
 12 ordinary skill would understand the phrase “in regulation” to mean “under normal operating  
 13 conditions.”

14 Accordingly, as used in Claim 1 of the ‘079 Patent, the Court construes the phrase “when the  
 15 output of the power supply is in regulation” to mean:

16 **when the power supply is operating under normal conditions.**

17 **3. Second “wherein” clause**

18 The second “wherein” clause provides:

19 and wherein the control circuit is coupled to **vary a switching frequency of the power**  
 20 **switch without skipping cycles in response to the feedback signal** for a second range of  
 feedback signal values when the output of the power supply is in regulation.

21 **a. “to vary a switching frequency of the power switch without skipping**  
 22 **cycles”**

23 The parties dispute the meaning of the phrase “vary a switching frequency of the power  
 24 switch without skipping cycles in response to the feedback signal.”

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25 <sup>12</sup> The Linear Technology Data Sheet disclosed “reducing the frequency under a fault  
 26 condition, for example an output short circuit. For instance, the LT1074 datasheets states at page 5  
 27 ‘[u]nder dead shorted output conditions, switch duty cycle may have to be as low as 2% to maintain  
 output control current . . . so frequency is reduced at very low output voltages.’” (December 19  
 Response at 42-43.)

1       “Cycle skipping” is described in the Background Section of the ‘079 Patent’s written  
2 description as “reducing the duty cycle as the load decreases, and when the duty cycle is reduced  
3 down to a predetermined minimum duty cycle, it alternatively switches for some duration of time  
4 and stays idle for another duration of time depending on the load.” (‘079 Patent, Col. 1:67-2:4.)  
5 The written description states that “the frequency of [the] drive signal is reduced without skipping  
6 cycles of [the] drive signal in accordance with the teachings of the present invention. Instead, the  
7 period of each cycle is increased to reduce the frequency of [the] drive signal.” (‘079 Patent, Col.  
8 8:27-31.)

9           This limitation was used to overcome an examiner’s rejection during reexamination under 35  
10 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,657,215 (the “‘215 Reference”), which  
11 described skipping cycles to switch the power switch less often, i.e., “for certain cycles . . . , the  
12 switch will not be turned on.” (December 19 Response at 34-37.) The patentee distinguished the  
13 ‘079 Patent from the ‘215 Reference as failing to disclose, teach or fairly suggest a “control circuit  
14 coupled to vary a switching frequency of the power switch *without skipping cycles* . . . .” (*Id.* at 36)  
15 (emphasis in original). Thus, the specification of the ‘079 Patent describes a switching frequency  
16 that varies in response to a feedback signal while continuing to turn on the switch for each frequency  
17 cycle.

18           Accordingly, as used in the asserted Claims of the ‘079 Patent, the Court construes the  
19 phrase “to vary a switching frequency of the power switch without skipping cycles in response to the  
20 feedback signal” to mean:

21           **changing the number of switching cycles per second of the power switch in response to  
22 the feedback signal while continuing to turn the switch on in each cycle.**

23       **B. The ‘908 Patent**

24           Claim 26 of the ‘908 Patent provides:

25           A power supply controller circuit, comprising:

26           a **multi-function circuit** coupled to receive a signal at a **multi-function terminal** for  
27           adjusting a current limit of a power switch, the multi-function circuit to generate a  
28           current limit adjustment signal in response to the signal; and

1 a **control circuit** coupled to receive the current limit adjustment signal, the **control circuit**  
 2 coupled to adjust the current limit of a current through the power switch in response to  
 the current limit adjustment signal.

3 **1. “multi-function circuit”<sup>13</sup>**

4 The parties dispute the meaning of the term “multi-function circuit.”

5 The Court finds that a person of ordinary skill in the art would understand that the patentees  
 6 used the prefix “multi-” with its ordinary meaning, i.e., multiple or many.

7 The word “function”<sup>14</sup> is not expressly defined in the specification. However, the related  
 8 word “functionality” is discussed in the specification in a description of various embodiments of “a  
 9 power supply controller” of “the present invention”:

10 In one embodiment of the present invention, a power supply controller is provided with the  
 11 **functionality of being able to remotely turn on and off the power supply.** In another  
 12 embodiment, the power supply controller is provided with the **functionality of being able to**  
 13 **externally set the current limit of a power switch in the power supply controller**, which  
 14 makes it easier to prevent saturation of the transformer reducing transformer size and cost.  
 15 \* \* \*

16 In yet another embodiment, the power supply controller is provided with the **functionality of**  
 17 **being able to detect an under-voltage condition in the input line voltage of the power**  
 18 **supply** so that the power supply can be shutdown gracefully without any glitches in the  
 19 output. In still another embodiment, the power supply controller is provided with the  
 20 **functionality of being able to detect an over-voltage condition in the input line voltage**  
 21 **of the power supply** so that the power supply can be shut down under this abnormal  
 22 condition.  
 23 \* \* \*

24 In another embodiment, the power supply controller is provided with the **functionality of**  
 25 **being able to limit the maximum duty cycle of a switching waveform** generated by a  
 26 power supply controller to control the DC output of the power supply.

27 (‘908 Patent, Col. 3:42; 44-45; 53-56; 58-60; 3:65-4:1.) Based on the written description, the Court  
 28 finds that a person of ordinary skill in the art would understand “function” as used in Claim 26 of the  
 ‘908 Patent to mean an electronic action or effect.

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24 <sup>13</sup> The phrases in dispute—“multi-function circuit,” “multi-function terminal” and “control  
 25 circuit”—are used in other Claims of the ‘908 Patent. The Court gives its construction of these  
 26 phrases as used in Claim 26, and reserves for later consideration the question of whether the  
 27 construction applies to other Claims.

28 <sup>14</sup> The word “function” is ordinarily and customarily used to mean the action for which a  
 thing is specially fitted or used. See WEBSTER’S NEW COLLEGIATE DICTIONARY 498 (9th ed. 1991).

1       Claim 26 recites that the “multi-function circuit” is coupled to receive a “signal”  
2 at a multi-function terminal. Claim 26 also recites that “in response to the signal,” the multi-  
3 function circuit is “to generate a current limit adjustment signal.” Although only one function is  
4 recited in Claim 26, a person of ordinary skill in the art would understand that the functions of the  
5 multi-function circuit would not be limited to a single function.

6       Accordingly, as used in Claim 26 of the ‘908 Patent, the Court construes the phrase “multi-  
7 function circuit” to mean:

8       **A circuit within a power supply controller circuit that is capable of performing at least  
9 the function of generating a current limit adjustment signal based on a signal from a  
multi-function terminal that is electronically coupled to it.**

10      **2. “multi-function terminal”**

11      The parties dispute the meaning of the phrase “multi-function terminal.”

12      The word “multi-function” carries the same meaning when used to disclose a “terminal” as it  
13 was given above in disclosing a “circuit.” With respect to an electrical component, a person of  
14 ordinary skill in the art at the time of the invention would understand that a “terminal” is an  
15 electrical node on an integrated circuit that enables interconnection between circuit elements.

16      The combined phrase “multi-function terminal” is used in the written description:

17      [the] power supply controller includes a multi-function terminal, which in one embodiment  
18 enables power supply controller to provide one or a plurality of different functions,  
depending on how multi-function terminal is configured.

19      (‘908 Patent, Col. 4:66-5:3.)

20      From this discussion of an embodiment that includes a “multi-function terminal,” a person of  
21 ordinary skill in the art would understand that the multi-function terminal can be “configured” to  
22 “enable” the power supply controller to provide “one or a plurality of different functions.” The  
23 written description discusses an embodiment in which “one or some” of the “functions are available  
24 when *positive current flows into* the multi-function terminal.” Other embodiments are discussed in

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1 which “one or some” of the “functions are available when *negative current flows out from* the multi-  
2 function terminal.” (See e.g., ‘908 Patent, Col. 4:14-22, 8:47-50.)<sup>15</sup>

3 The written description refers to drawings 2A through 2F to illustrate how the same multi-  
4 function terminal can be used in multiple configurations:

5 [T]he power supply controller configurations described in connection with FIGS. 2A through  
6 2F all utilize the same multi-function terminal. Stated differently, in one embodiment, the  
7 same power supply controller may be utilized in all of the configurations described. Thus,  
8 the presently described power supply controller provides a power supply designer with added  
flexibility. As a result, a power supply designer may implement more than one of the above  
functions at the same time using the presently described power controller.

9 (‘908 Patent, Col. 7:57-66.) Further, the written description describes the figures as “just a few  
10 examples of [the] use of the multi-function terminal.” (‘908 Patent, Col. 8:9-12.)

11 There is no disclosure of the “multi-function terminal” itself performing any function. The  
12 only disclosure is that of a node that enables the flow of current into or out of interconnected circuit  
13 elements. Therefore, a person of ordinary skill in the art would understand that any other function  
14 would be performed by other circuit elements interconnected to the “multi-function terminal.”

15 \_\_\_\_\_  
16 <sup>15</sup> Using a block diagram, the written description discusses how the multi-function terminal  
enables a function:

17 Fig. 3 is a block diagram illustrating one embodiment of a power supply controller in  
18 accordance with teachings of the present invention. [The] power supply controller includes a  
19 current input circuit, which in one embodiment serves as multi-function circuitry. [The]  
current input circuit includes a negative current input circuit and a positive current input  
circuit. In one embodiment, [the] negative input circuit includes [a] negative current sensor,  
on/off circuitry and [an] external current limit adjuster.

20 As shown in [Figure 3] negative current sensor and positive current sensor are  
21 coupled to [the] multi-function terminal. In one embodiment, [the] negative current sensor  
generates a negative current sense signal and [the] positive current sensor generates a  
22 positive sense signal. . . . In one embodiment, on/off circuitry is coupled to receive [the]  
negative current sense signal. External current limit adjuster is coupled to receive [the]  
negative current sense signal.

23 In one embodiment, [the] external current limit adjuster generates [an] external  
24 current limit adjustment signal in response to [a] negative current sense signal. In one  
embodiment, when the magnitude of the negative current flowing from [the] multi-function  
25 terminal through an external resistance or switch to [the] ground is below a predetermined  
level, the current limit adjuster generates an external current limit adjustment signal to limit  
the current flowing through the power switch.

26 (‘908 Patent, Col. 8:27-39, 42-54; Col. 10:8-16.)

27 The Court does not find this discussion limiting.

1           Accordingly, as used in Claim 26 of the ‘908 Patent, the Court construes the phrase “multi-  
2 function terminal” to mean:

3           **an electrical node that can be configured and interconnected between components of  
4 the power supply circuit so as to enable an electrical signal to flow into and out of those  
components to other components.**

5           **3.       “control circuit”**

6           Claim 26 recites: “a control circuit coupled to receive the current limit adjustment signal, the  
7 control circuit coupled to adjust the current limit of a current through the power switch in response to  
8 the current limit adjustment signal.” The parties dispute the meaning of the term “control circuit.”

9           The specification states that the control circuit “generates a switching waveform[], which is  
10 coupled to be received by [the] power switch.” (‘908 Patent, Col. 9:13-15.) The control circuit  
11 generates the switching waveform “to control [the] power switch in response to a current sense  
12 signal received from [the] drain terminal, [the] enable/disable signal, [the] maximum duty cycle  
13 adjustment signal, a control signal from [the] control terminal and [the] external current limit  
14 adjustment signal.” (‘908 Patent, Col. 12:49-54.) Thus, the signals that the specification describes  
15 as inputs to the control circuit are generated within the multi-function circuit as well as the control  
16 terminal and the drain terminal. (See ‘908 Patent, Figs. 3, 4.)

17           Claim 27, which depends from Claim 26, further recites that the control circuit is “further  
18 coupled to an output of the power supply through a control terminal of the power supply controller  
19 circuit.” Thus, consistent with the written description, Claim 26 discloses a power supply controller  
20 circuit that contains a circuit which uses electrical signals generated within the power supply  
21 controller circuit in order to control the power supply regulation.

22           Accordingly, as used in Claim 26 of the ‘908 Patent, the Court construes the phrase “control  
23 circuit” to mean:

24           **A circuit that controls the power switch by generating a waveform which is responsive  
25 to electrical signals generated within the power supply controller circuit.**

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## **V. CONCLUSION**

2 In this Order, the Court has given its construction of submitted words and phrases of the '079  
3 and '908 Patents.

4 The parties shall appear for a Case Management Conference on **September 19, 2011 at 10**  
5 **a.m.** On or before **September 9, 2011**, the parties shall submit a Joint Case Management Statement.  
6 The Statement shall include, *inter alia*, a good faith discovery plan with a proposed date for the  
7 close of all merits discovery and a stipulation as to a mediation process.

|| Dated: July 13, 2011

JAMES WARE  
United States District Chief Judge

1 **THIS IS TO CERTIFY THAT COPIES OF THIS ORDER HAVE BEEN DELIVERED TO:**

2 Anthony R. De Alcuaz adealcuaz@mwe.com  
3 Frank Everett Scherkenbach scherkenbach@fr.com  
Howard Glenn Pollack pollack@fr.com  
4 Jeremy Todd Elman jelman@mwe.com  
Michael Richard Headley headley@fr.com

5 **Dated: July 13, 2011**

6 **Richard W. Wiking, Clerk**

7 **By: /s/ JW Chambers**  
8 **Susan Imbriani**  
**Courtroom Deputy**